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SERIES**



|| Using Psychometric  
|| Assessments for selection

# Using Psychometric Assessments for selection

According to SAGEA's 2019 Employer Benchmarking Report, its member organisations received, on average, 2100 graduate applications, with roughly 25% of member organisations receiving more than 5000 graduate applications.

A fifth of those candidates who submitted applications were successful in reaching the next stage of the selection process. However, on average, 10% of candidates eventually turned down offers they had accepted.

Given the high costs associated with recruitment and selection, psychometric assessment offers one of the quickest and most cost-effective ways to reduce applicant volumes and improve job-fit and hiring ratios.



## What are psychometric assessments?

- ✓ Psychometric assessments are standardised, scientific methods that measure individuals' skills, aptitudes, knowledge and traits.
- ✓ Psychometric assessments are typically used to determine whether an individual is suitable for a job or role.
- ✓ Psychometric assessments include aptitude tests (such as verbal and numerical reasoning), personality questionnaires, and even emotional intelligence assessments.
- ✓ SAGEA members indicate that aptitude tests, personality questionnaires and emotional intelligence (EQ) assessments are frequently used in their organisations for the selection of graduates.



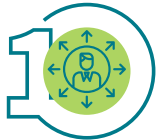
## Why use psychometric assessments?

- ✓ Objective way of determining an individual's suitability for a job.
- ✓ Quick and reasonably cost-effective way to screen large volumes of graduate applicants to create a targeted short-list.
- ✓ Most psychometric assessments can now be administered digitally, with automated scoring, thereby delivering efficient results, even for large volumes.



# How to choose the right psychometric assessments for your business

There are three main criteria to help organisations decide on a suitable battery of psychometric assessments for graduate recruitment, namely, skills, level, and relevance.



## What skills, knowledge, aptitudes, and traits are important for graduate roles?

The first step is to determine these key attributes by doing a thorough job analysis.

Organisations can also be directed by global guidelines such as those provided by the World Economic Forum (WEF), who have identified a range of foundational literacies, behavioural competencies and character qualities that are increasingly important to success at work in the 21st century.

For example:

- Aptitude tests can be used to measure a range of foundational literacies such as verbal and computer literacy, and numeracy.
- Personality questionnaires can be used to measure an individual's preference for problem solving, creativity, initiative, persistence and leadership.
- EQ questionnaires can be used to measure an individual's disposition for collaboration, adaptability, and social and cultural awareness.



## What psychometric assessments are relevant for graduates?

The outcomes of the job analysis help organisations to decide the type and number of psychometric assessments that must be included in your assessment battery.



## What is the level of complexity associated with the graduates' work?

This is important when you select psychometric assessments. The test must be appropriately benchmarked to the level of complexity associated with graduate roles.



# What are the professional and legislative requirements to use psychometric assessments?



The use of psychometric assessments is strictly governed in South Africa.



According to the Employment Equity Act (act no. 55 of 1998), Section 8, when using psychometric assessments in South Africa, these must be scientifically valid and reliable, not discriminate against any group or people, and must be based on inherent job requirements.



Psychometric assessments can only be used by trained professionals who are registered with the Health Professions Council of South Africa (HPCSA), such as psychologists and psychometrists (who work under the supervision of psychologists) (Health Professions Act, act no. 56 of 1974).



Currently, all assessments that measure any type of psychological construct must be registered with the HPCSA and can only be used by a person registered with the HPCSA.



However, there is a lot of contention about the quality, reliability and validity of some of these psychometric assessments, so it is likely that the list of classified assessments will be reviewed in the future.



## How should you evaluate the scientific standards when choosing psychometric assessments?

Although statistics is a complex field, there are some minimum requirements that a psychometric assessment should comply with:



The most important requirement is that the test has been **validated in the South African Context**. This means that the reliability statistics, validity estimates, and norms have been conducted on a relevant South African sample(s).



**Reliability studies:** at least 1 reliability study with a sample size of 300 (or more) is recommended. The internal consistency reliability coefficient should be 0.8 and higher.



**Validity studies:** at least 5 validity studies in different settings is recommended. Some measure of construct validity is desirable but criterion/predictive validity of a psychometric test is essential.



The range of acceptable criterion-related coefficients in validity studies when looking at **individual dimensions** (rather than an overall validity coefficient) is:

- Cognitive ability: 0.4 and higher
- Personality: 0.2 - 0.4
- Assessments using gamification: 0.3 and higher



Ideally, the psychometric assessment should function equivalently across ethnic and gender groups.



## Latest trends in psychometric assessments

A key topic of interest in psychometric assessments is learning agility. But what does this construct mean? And how do psychometric assessments assist organisations in making better decisions about a person's learning agility?

**Learning agility encompasses three elements:**

- A person's learning ability i.e. the speed of learning and how much complexity a person can handle.
- A person's preference for learning behaviours e.g. openness to learn, flexibility and inquisitiveness (minus any inhibiting traits e.g. conventionalism, inflexibility, perfectionism etc).
- A person's learning potential i.e. what a person is capable of learning and doing.

**Learning agility can be assessed in one of three ways:**

- Behavioural/trait-based assessment: usually with a personality questionnaire.
- Cognitive assessment: usually with aptitude/ability tests.
- Test-retest assessment: a person completes a task, gets feedback or practice, and is then tested again to see the degree of improvement from Test 1 and Test 2.

**For learning agility to be an accurate measure of future performance it is recommended that both behavioural and cognitive aspects are measured:**

- Behavioural-based assessment will tell organisations whether the person is open to more learning.
- Cognitive-based assessment will tell organisations the complexity of information the person will be able to learn.

So, if learning agility is an important requirement for an organisation's graduate recruitment program then both behavioural and cognitive assessments should be used to inform decision making.

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